III. REMARKS

Claims 1, 21 and 28 are amended. The Applicant would like to thank the Examiner for the indication of allowable subject matter in claim 11.

The Examiner called William J. Knotts, Jr. on September 9, 2009 and offered to allow the application if claims 11 and 2 were incorporated into claim 1 and claims 24-47 were cancelled. This offer was declined by the Applicant.

Claim 47 is patentable under 35 USC 112, second paragraph. The Examiner speciously asserts that "[i]t is not clear what structure is added to configure the two transport parts at different speeds." However, this is not the test for definiteness under 35 USC 112, second paragraph. The Examiner is reminded that the test for definiteness under 35 USC 112, second paragraph is whether "those skilled in the art would understand what is claimed when the claim is read in light of the specification." *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 806 F.2d 1565, 1576, 1 USPQ2d 1081, 1088 (Fed. Cir. 1986). Applicant would like to direct the Examiner to, as non-limiting examples, P. 10, L. 26 - P. 11, L. 1 and P. 18, L. 10 - P. 20, L. 3 of Applicant's specification. One skilled in the art reading claim 47 in light of these exemplary portions of Applicant's specification would clearly understand what is being claimed by the language "the second transport section is configured for transporting the container between separate locations of the first transport section at transport speeds greater than a transport speed of the first transport section"

recited in claim 47. Thus, the rejection of claim 47 should be withdrawn.

Claim 44 is patentable under 35 USC 102(a) over Bonora et al. (US 6494308, hereinafter "Bonora"). The Examiner argues that Bonora teaches configuring the various sections of Bonora to meet a user's desires and as such would entail a modular system that can be put together and taken apart. The Examiner also asserts that it is inherent from Bonora that each section will have a particular length. Applicant agrees that the system in Bonora can be put together and taken apart however, there is absolutely no disclosure (express or inherent) in Bonora that the drive rail 12 of Bonora "is modular with drive track modules, each drive track module defining a length of the drive track for a predetermined drive track length and being adapted to be removed and joined together, as a unit, end to end to form extended lengths of the drive track during drive track installation, wherein each drive track module has at least one of the track elements integral thereto" as recited in Applicant's claim 44.

Applicant requests that the Examiner explicitly point out where exactly Bonora discloses (expressly or inherently) modular tracks claimed in Applicant's claim 44. Both the Examiner's rejection and response to arguments lack any reference to Bonora for supporting the Examiner's argument.

All that is disclosed in Bonora is that "the drive rail 12 and idler rail 14 are arranged in an intra-bay loop 18" (Col. 5, L.

62-63) and that the drive rail 12 "includes a drive system" (Col. 7, L. 32-33). There is absolutely no other description provided in Bonora as to how the intra-bay loop 18 is assembled or the configuration of drive rail 12. The Examiner's assertion that Bonora entails a modular system, as claimed by Applicant, is mere speculation that appears to be based on hindsight in view of what is being claimed by Applicant. As there is absolutely no disclosure (express or inherent) as to the assembly of the intra-bay loop 18 or configuration of the drive rail 12, one can also speculate that the drive rails in Bonora are extrusions that are cut to length where the drive system assemblies 40 are inserted into the rail 12 after they are cut to length so that the transport pod 8 is able to straddle the drive assembly wheels (See Bonora at Col. 7, L. 42-46). There are many different ways the system of Bonora can be assembled and taken apart. However, all of these assembly methods and rail configurations are merely speculation and as such the disclosure of Bonora is completely insufficient to support a rejection based on any one particular method of assembling or disassembling the drive rail 12 or the configuration of the drive rail 12 because there is simply no mention of such assembly/disassembly methods or rail configuration in Bonora.

The Examiner is again reminded that "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987), and that "[t]he identical invention must be shown in as complete detail as is contained in the ... claim." Richardson v.

Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). There is simply insufficient disclosure in Bonora to support the assertion that Bonora inherently (or expressly) discloses that the drive rail 12 is "modular with drive track modules" where "each drive track module defining a length of the drive track for a predetermined drive track length and being adapted to be removed and joined together, as a unit, end to end to form extended lengths of the drive track during drive track installation" as recited in Applicant's claim 44.

Thus, claim 44 is patentable over Bonora.

Claims 1, 15-20, 34, 35-39, 40-42 and 47 are patentable under 35 USC 103(a) over Bonora, Lin et al. (US 2003/0198540, hereinafter "Lin") and Mizokawa et al. (US 6863485, hereinafter "Mizokawa"). Claim 1 recites a second transport section connected to the first transport section for transporting the container to a variable location of the first transport section where the container is transferred between the first and second transport sections for transporting the container to and from the processing tool and that the second transport section has a motor connected to the second track for moving the container on the second track and stopping the container on the second track in alignment with the transport vehicle positioned at the variable location on the first track so that the container can be picked from the second track by the transport vehicle without repositioning of both the container and the transport vehicle once the container is stopped on the second track. These features are simply not disclosed or suggested by Bonora.

The Examiner admits Bonora does not teach an overhead transport system. The Examiner looks to Lin as disclosing the overhead transport system while asserting the reasoning for combining Bonora and Lin is to allow two types of transports to service each device in the fabrication plant without interfering with each other. However, this reason for combining the references is not relevant as this is not what is claimed by Applicant. Claim 1 calls for a transfer of the container between the first and second transport sections at a variable location of the first transport section.

Further, Nowhere does Lin disclose or suggest that the location at which the overhead vehicle 36 lowers the FOUP 44 into the container 60 is variable as claimed by Applicant. The stockers 30 in Lin are disposed in a fixed position relative to the overhead transport system 32. The vehicle 36 in Lin is only capable of lowering the FOUP to a location positioned directly beneath the vehicle 36. Because the stockers 30, and hence the conveyor belt 52, in Lin are in a fixed position relative to the overhead transport system (it is noted that the conveyor belts 52 are positioned ninety-degrees to the overhead transport track so that the stockers do not interfere with the tracks) the transfer of the FOUP to the container 60 for each stocker 30 must take place a fixed location as the overhead track and the conveyor belt 52 meet at only one location.

Thus, the combination of Bonora and Lin cannot disclose "a second transport section connected to the first transport section for transporting the container to a variable location of the first transport section where the container is transferred between the first and second transport sections for transporting

the container to and from the processing tool" or that "the second transport section has a motor connected to the second track for moving the container on the second track and stopping the container on the second track in alignment with the transport vehicle positioned at the variable location on the first track so that the container can be picked from the second track by the transport vehicle without repositioning of both the container and the transport vehicle once the container is stopped on the second track" as claimed in Applicant's claim 1.

It is noted that transfer locations between the conveyor system in Bonora and the load port 24 are also fixed and therefore cannot be variable. The combination of Bonora and Lin simply does disclose or suggest the above noted features of Applicant's claim 1. Combining Bonora and Lin with Mizokawa also fails to disclose the above noted features of claim 1.

Mizokawa merely discloses a wafer transfer robot 13 that moves along a rail and nothing more. Thus, the combination of Bonora, Lin and Mizokawa cannot disclose or suggest "a second transport section connected to the first transport section for transporting the container to a variable location of the first transport section where the container is transferred between the first and second transport sections for transporting the container to and from the processing tool" or that "the second transport section has a motor connected to the second track for moving the container on the second track and stopping the container on the second track in alignment with the transport vehicle positioned at the variable location on the first track so that the container can be picked from the second track by the transport vehicle without repositioning of both the container

and the transport vehicle once the container is stopped on the second track" as claimed in Applicant's claim 1.

Applicant also maintains that Bonora and Lin would not be combined by one skilled in the art for the reasons (e.g. Bonora teaches away from Lin) provided in Applicant's response dated June 26, 2009, which are incorporated herein by reference in their entirety. The Examiner asserts that Bonora does not teach away from the device in Lin because Bonora doesn't teach that the overhead transport system of Lin does not work but rather states "repeatedly raising and lowering the pod is challenging" and that because something is difficult does not make it counter intuitive. This assertion is specious at best. The Examiner is reminded that the reference must be considered as a whole. W.L. Gore & Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984). It is clear that when Bonora is read as a whole that the conveyor system of Bonora is put forth as being superior to an overhead transport system as Bonora specifically recites the precise alignment required between the load port and the pod when using an overhead hoist and that an automated conveyor system which positions the pod for direct, efficient transfer to the load port is desirable (Col. 2, L. 58-67). Col. 2, L. 58-67 of Bonora specifically recites deficiencies of overhead transport and then states the conveyor system of Bonora is desirable...How is this not considered by the Examiner as teaching away from an overhead transport system?

On page 11 of the office action the Examiner admits that Bonora teaches the use of overhead transport systems is undesirable and unnecessary with the conveyor disclosed in Bonora. However, the examiner asserts that Bonora can be combined with Lin because there is no teaching that a system such as Lin's cannot work. However, this "cannot work" reasoning is not relevant to the issue at hand and is not a requisite for combining references. While the Examiner provides hypothetical reasons for combining Bonora and Lin, the Examiner fails to provide evidence why the Examiner's reasons for combining the references overcome the explicit teachings of Bonora against the use of overhead transport systems such as that disclosed in Lin. The Examiner is reminded that it is improper to combine references where the references teach away from their combination. *In re Grasselli*, 713 F.2d 731, 743, 218 USPQ 769, 779 (Fed. Cir. 1983). The Examiner has failed to establish a prima facie case of obviousness as it is not enough to merely discuss some hypothetical reason for combining references, especially when there is an explicit teaching against their combination as is the case here.

Claim 34 is patentable over the combination of Bonora, Lin and Mizokawa at least because one skilled in the art would not combine Bonora with Lin for reasons substantially similar to those described above with respect to claim 1 as Bonora specifically teaches away from what is taught in Lin.

Moreover, claim 34 recites a second transport section (that is not vehicle based) connected to the first transport section

(that is vehicle based) for transporting the containers between separate locations of the first transport section. Claim 34 is patentable over the combination of Bonora, Lin and Mizokawa for reasons substantially similar to those described above with respect to claim 1. Further, Bonora only discloses a single conveyor system 10 and nothing more. Lin, as described above, merely discloses an interbay transfer interface between an OHT system 32 having a vehicle 36 and a stocker which includes a conveyor belt (having open topped containers) positioned juxtaposed to the stocker for transporting FOUPS 44 placed within the open topped containers into the stocker (Abstract). The vehicle 36 of Lin always delivers the FOUP 44 to that same location of the respective conveyor belts 52 for each of the stockers 30. Mizokawa, as also described above, merely discloses a single transport (i.e. the guide rail 11 and mobile element 12). Bonora, Lin and Mizokawa alone or in combination simply do not disclose or suggest a second transport section (that is not vehicle based) connected to the first transport section (that is vehicle based) for transporting the containers between separate locations of the first transport section as recited in Applicant's claim 34. Thus, claim 34 is patentable for this additional reason.

Claim 39 is patentable over the combination of Bonora, Lin and Mizokawa for reasons that are substantially similar to those described above with respect to claim 1. Claims 15-20, 35-38, 40-42 and 47 are patentable over the combination of Bonora, Lin and Mizokawa at least by reason of their respective dependencies.

Claim 43 is patentable under 35 USC 103(a) over Bonora, Lin, Mizokawa and Studer (US 4841204). Claim 43 depends from claim 39. For the reasons described above, claim 39 is patentable over the combination of Bonora, Lin and Mizokawa. Thus, it is submitted that the combination of Bonora, Lin, Mizokawa and Studer cannot disclose or suggest all of the features of claim 39 as well. Therefore, claim 43 is patentable at least by reason of its dependency.

Claims 2-10 and 12-14 are patentable under 35 USC 103(a) over Bonora, Lin and Belna (US 4624617). Claims 2-10 and 12-14 depend from claim 1. The combination of Bonora and Lin do not disclose or suggest all the features of claim 1 for the reasons described above. Thus, it is submitted that the combination of Bonora, Lin and Belna cannot as well. Therefore claims 2-10 and 12-14 are patentable at least by reason of their respective dependencies.

Further, claim 4 recites at least a portion of the motor is molded in a portion of the frame assembly. The Examiner asserts that Bonora teaches the motors being molded into cavities in the bottom of the car because the transport sled of Belna has pockets with portions of the motors mounted therein. It is noted that there is absolutely no support provided by the Examiner for this assertion. All that is provided is a mere conclusory statement, which is insufficient to support a rejection of obviousness (see MPEP § 2142, *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006), and *KSR*, 550 U.S. slip opinion at 14, 82 USPQ2d at 1396). Moreover, what is

asserted by the Examiner is not what is disclosed in Belna. All that is disclosed in Belna merely discloses that "a plurality of permanent magnets 42 are disposed in the car 14 beneath the fork 20 and between the car guides 18" (Col. 3, L. 4-7). There is absolutely no disclosure in Belna of "molding" "a portion of the motor" "in a portion of the frame assembly" as recited in claim 4. Thus, claim 4 is patentable for this additional reason.

Claims 21-26, 28-32, 45 and 46 are patentable under 35 USC 103(a) over Bonora and Belna. Claim 21 recites the motor being configured to drive the container along two different axes without reorienting the container when transitioning between the two axes. Nowhere are these features disclosed by the combination of Bonora and Belna.

Even if just the linear induction motor (i.e. the drive) of Lin is combined with Bonora (as Bonora already provides structure for guiding the transport pod 8, see Office Action dated September 11, 2009 at page 12), the combination of Bonora and Lin fails to disclose the above noted features of claim 21. It is assumed that the Examiner is referring to the embodiment of Bonora illustrated in Fig. 11 of Bonora where the rollers 42 contact the transport pod 8 directly. If the linear induction motor of Lin replaces the rollers 42 the transport pod 8 is still constrained by the shoes 88 for keeping the transport pod 8 from rotating relative to rails 12, 14. The shoes 88 include wheels 96, each of which has a groove 98 formed therein which rides on the v-shaped idler rail 14 (Col. 11, L. 54-67). It is noted that the other embodiments of Bonora are also similarly constrained by the idler rail 14 such that the same side of the

transport pod 8 always faces the drive rail 12. Because the transport pod 8 is prevented from rotating relative to the rails Bonora is incapable of disclosing (even with the linear induction motor of Belna which is also guided along a track and is unable to move transversely to the track) the motor being configured to drive the container along two different axes without reorienting the container when transitioning between the two axes as recited in Applicant's claim 21. Rather Bonora specifically discloses two types of intersections 26, 28. Intersection 26 rotates the transport pod 8 by 90 degrees to ensure the same side of the transport pod 8 is aligned with the drive rail 12. Intersection 28 rotates the drive rail to change the orientation of the drive rail so that the transport pod is again rotated so that the same side of the transport pod is aligned with the rail section to which the transport pod is being transferred. (Col. 6, L. 46-60).

Thus, the combination of Bonora and Belna cannot disclose or suggest the motor being configured to drive the container along two different axes without reorienting the container when transitioning between the two axes as recited in Applicant's claim 21. Claims 22-26 and 45 depend from claim 21 and are patentable at least by reason of their respective dependencies.

Claim 28 recites the at least one surface having two axes oriented in the same plane and the motor portion being adapted to cooperate with another motor portion of the transport system for driving the container along the track such that the frame is driven along the track with any one of the two axes oriented in a direction of travel along the track. Claim 28 is patentable over the combination of Bonora and Belna for reasons that are

substantially similar to those described above with respect to claim 21. In particular Bonora, modified with the linear induction motor of Belna, must drive the transport pod 8 along the rails with the same side of the transport pod 8 aligned with the drive rail 12 (Col. 6, L. 46-60 and Col. 11, L. 54-67) due to the constraints of the idler rail 14 on the transport pod 8.

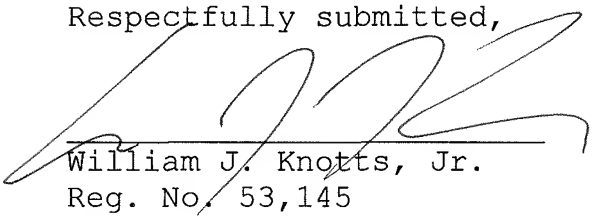
Claims 29-32 and 46 depend from claim 28 and are patentable over the combination of Bonora and Belna at least by reason of their respective dependencies.

Claims 27 and 33 are patentable under 35 USC 103(a) over Bonora, Belna and Lin. Claims 27 and 33 depend from claims 21 and 28. The combination of Bonora and Belna does not disclose or suggest all of the features of claims 21 and 28 for the reasons described above. It is submitted that the combination of Bonora, Belna and Lin cannot as well. Thus, claims 27 and 33 are patentable at least by reason of their respective dependencies.

For all of the foregoing reasons, it is respectfully submitted that all of the claims now present in the application are clearly novel and patentable over the prior art of record, and are in proper form for allowance. Accordingly, favorable reconsideration and allowance is respectfully requested. Should any unresolved issues remain, the Examiner is invited to call Applicants' attorney at the telephone number indicated below.

The Commissioner is hereby authorized to charge payment for any fees associated with this communication or credit any over payment to Deposit Account No. 16-1350.

Respectfully submitted,



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